

## Claims

1. A plastic syringe barrel in which an outer cylinder and an inner cylinder are formed in a nozzle portion of the plastic syringe barrel and in  
5 which a luer lock portion composed of a cylindrical space is formed between an inner peripheral surface of the outer cylinder and an outer peripheral surface of the inner cylinder,  
wherein all or part of an inner surface of said luer lock portion is  
subjected to surface roughening treatment.
- 10 2. The plastic syringe barrel according to claim 1,  
wherein said inner peripheral surface of said outer cylinder is  
subjected to surface roughening treatment.
- 15 3. The plastic syringe barrel according to claim 1,  
wherein a helically continuous screw thread is formed on said inner peripheral surface of said outer cylinder, and the surface of said screw thread and/or a screw root portion is subjected to surface roughening treatment.
- 20 4. The plastic syringe barrel according to claim 1,  
wherein the material of said plastic syringe barrel is cyclic polyolefin resin.
- 25 5. The plastic syringe barrel according to any one of claims 1, 2, 3, and 4,  
wherein said surface roughening treatment is blast treatment.

6. A method for improving a plastic syringe barrel in which an outer cylinder and an inner cylinder are formed in a nozzle portion and in which a luer lock portion composed of a cylindrical space is formed between an inner peripheral surface of the outer cylinder and an outer peripheral surface of the  
5 inner cylinder,

wherein the connection strength of said luer lock portion is enhanced by forming all or part of an inner surface of said luer lock portion into a surface subjected to surface roughening treatment.